Amendments to the Specification

Delete the paragraph [0060]:

Beginning on page 18, line 16, with the words *Finally, a substrate is …*
and ending on page 19, line 4 with the words *…in the present invention*.

~~Finally, a substrate is defined as a woven or nonwoven, solid, or flexible mass of material upon which the polymers of the invention can be applied and with which such polymers can form covalent bonds. Cellulose products, such as the gauze and other absorbent dressings described in the following paragraphs, are preferred materials to be used as water-insoluble bases when a wound dressing is prepared. The term "substrate" can also include the surfaces of large objects, such as cutting boards, food preparation tables and equipment, surgical room equipment, floor mat, blood transfer storage container, cast liner, splint, air filter for autos, planes or HVAC systems, military protective garment, face mask, devices for protection against biohazards and biological warfare agents, lumber, meat packaging material, paper currency, and other surfaces in need of a non-leaching antimicrobial property, and the like, onto which is applied the antimicrobial polymeric coating in accordance with the present invention. Apart from cellulose, any material (ceramic, metal, or polymer) with hydroxyl groups on it's surface can be used as a substrate for the cerium (IV) catalyzed grafting reaction described in the following paragraphs. The extent of grafting will be dependent on the surface hydroxyl concentration. Even materials which do not normally contain sufficient surface hydroxyl groups may be used as substrates, as many methods are available for introducing surface hydroxyl groups. These methods generally include hydrolysis or oxidation effected by methods such as heat, plasma-discharge, e-beam, UV, or gamma irradiation, peroxides, acids, ozonolysis, or other methods. It should be noted that methods other than cerium initiated grafting may also be used in the practice of this invention.~~

Amend the paragraph [0100] as shown below:

Beginning on page 42, line 10, with the words *A common understanding in the…* and ending on page 42, line 30 with the words …Blank et al.

A common understanding in the art is that an "enhanced surface area" would not apply to monolayer treatments such as the siloxane system described by Blank et al. That is, an enhanced surface area substrate is needed to achieve high quaternary content. According to the present invention, however, a high quaternary content may be achieved even on low surface area fibers such as cotton because the quaternary materials of the present invention are polymeric. An analogy may be made to the "fuzzy" structure of a pipe-cleaner to describe a single substrate fiber modified by the currently-described method--that is, each "hair" of the pipe cleaner represents a polymer chain which has an antimicrobial group on substantially each monomer that makes up the polymer. The present applicants have actually attempted use of a Dow Corning product (TMS--the same compound described by Blank et al.) to treat fabrics, and have found that a significantly lower amount of quaternary antimicrobial groups could be applied. The bactericidal activity of the ~~TMC~~ TMS-treated fabrics was several orders of magnitude lower than the fabrics treated with polymeric quaternary materials. The inventors further found that the ~~TMC~~ TMS-treated samples became water-repellent. This effect was reported by Blank et al. (see U.S. Pat. No. 5,035,892; column 12, line 57). This impairment of absorbency is undesirable in a product intended for use as an absorbent. Furthermore, the siloxane monomer has a higher MW than the monomers of the present invention. As a result, the effective quaternary material content (number of positively-charged sites per gram of material) is further reduced as compared to that of the present invention. Finally, the present application further discloses use of neutral or negatively charged antimicrobial polymers, which is neither disclosed nor suggested according to Blank et al.